aerosol in decreasing doses for seven to ten days has been very effective in reducing inflammation of the nasal turbinates. Antihistamines and oral decongestants, because of their nonspecific drying action, tend to aggravate the condition initially, but may be useful later. Definitive therapy will depend on the underlying condition.

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Recent Findings in Atopic Dermatitis

THE IMMUNOLOGY of atopic dermatitis has received much attention in the last ten years. Clinical observations as well as *in vivo* and *in vitro* studies have suggested that immunodeficiency may be involved in the pathogenesis of atopic dermatitis. An uncontrolled clinical study suggested that atopic dermatitis could be dramatically improved by levamisole, an anthelmintic and known immunostimulant. Two randomized, double-blind studies in children and adults failed to show any improvement in atopic dermatitis in the levamisole-treated groups.

We have examined the *in vitro* effect of levamisole on lymphocytes, neutrophils, basophils and platelets from patients with atopic dermatitis and levels of serum IgE greater than 1,000 IU per ml. Levamisole had no effect on basophil histamine release, platelet serotonin release, neutrophil chemotaxis and phagocytosis, T cell number and lymphocyte mitogenesis induced by phytohemagglutinin, concanavalin A or pokeweed mitogen. Thus, levamisole appears not to have any *in vivo* or *in vitro* value in atopic dermatitis.

Elevated serum levels of IgE remain the most consistent immunologic abnormality in this disease and understanding its regulation may be important for future therapeutic advances. Studies have shown that a small subpopulation of human lymphocytes have surface receptors for the constant function (Fc) portion of IgE. The function of these IgE-Fc receptor lymphocytes and their relationship to grossly elevated IgE levels in atopic dermatitis patients is now being investigated.

Regulation of IgE by helper and suppressor cells or soluble factors (or both) is another area under investigation. However, clinicians should continue to rely on current conventional therapy of atopic dermatitis until new approaches are confirmed and made available.

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Indications for Use of Beclomethasone Dipropionate (Vanceril)

BECLOMETHASONE DIPROPIONATE (Vanceril) is an inhalable synthetic corticosteroid useful in the control of chronic bronchial asthma. It apparently works by direct contact and is nearly insoluble with little systemic absorption. Sparing patients from systemic side-effects represents a great advance in management of the disease. When taken in its recommended dosage, it appears to cause no adrenal suppression or growth retardation in children.

At present, use of Vanceril in treating asthma is limited to selected patients whose conditions cannot be controlled with bronchodilators and other nonsteroid medications and patients with chronic severe asthma already dependent on systemic steroid therapy. Its use is not indicated in the treatment of status asthmaticus or acute asthmatic attacks.

During and after transfer from systemic corticosteroids to aerosol beclomethasone dipropionate, adrenal insufficiency has been reported. This can be obviated by warning the patient that during exposure to stressful situations such as trauma, surgical procedures or uncontrollable asthma, administration of systemic steroids should be resumed. Risk of adrenal insufficiency can be assessed with early morning resting cortisol levels and response to adrenocorticotropic hormone.

Other side-effects of Vanceril therapy include monilial infections of the mouth and pharynx in a small percentage of patients and reappearance of allergic manifestations such as rhinitis and eczema which were previously suppressed by systemic steroid therapy. Monilial infections may require antifungal treatment with nystatin (Mycostatin) discontinuation of Vanceril therapy.

The effects of the drug in active or quiescent tuberculosis and, in particular, the long-term

effects of aerosolized corticosteroids on various airway tissues remain to be determined.

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Mold Control

TWO SOURCES for mold spores growing indoors have been identified. The first and, generally, more important source (exogenous) originates from outdoors but is constantly introduced into homes. The second source (endogenous) originates indoors but varies greatly from house to house. Studies in Michigan, using the volumetric Andersen sampler during frost-free periods, indicated that indoor viable mold spore counts were approximately 25 percent of the outdoor counts. Indoor mold counts varied from 10 to over 20,000 spores per cu meter. Higher indoor counts were associated with high relative humidity within the home, and generally occurred in homes with central humidification.

Similar studies done in Southern California showed a statistically significant correlation between the following outdoor characteristics and high viable mold spore counts indoors: extensive shaded areas near the house, large quantities of organic debris (fallen leaves, grass not removed after cutting, hay, compost or stands of dried weeds and grass on the lot), poor landscape maintenance and previous indoor water problems. Two indoor characteristics associated with low indoor mold isolates were the presence of a central electrostatic filtration system and compliance with dust control. In homes with continuously operated electrostatic filters, the mean viable mold spore count was 155 per cu meter, while in homes with intermittently operated units, the mean mold spore count was 344 per cu meter. In control homes the mean count was 687 spores per cu meter. A less dramatic although still statistically significant reduction in mold spore isolates occurred in homes where dust control measures were being implemented.

The effect of air-conditioning on indoor mold levels was recently studied. A statistically significant reduction in mold spore isolates occurred in the air-conditioned homes, but no differences in the percent concentration of the major genera were noted. The investigators had expected a greater percent reduction in large mold spores if these were being trapped in the air-conditioner, but no reduction in smaller spores. Because all genera were reduced equally, the investigators felt that merely closing an air-conditioned home created a barrier to the ingress of outdoor molds resulting in lower indoor mold levels. They also noted reduction of mold isolates in air-conditioned homes with low indoor relative humidity.

It appears prudent to recommend the following program to minimize indoor mold spore concentrations. The amount of shade near a house should be reduced by avoiding plants too close to the building and by periodic pruning of trees and shrubs. Better landscape maintenance with removal of all dead vegetation within 150 to 200 feet of the house would be helpful. Dust control compliance is encouraged. Water damaged items including carpet, books, wallpaper and wicker baskets should be removed from the premises and the cause of any previous water problem corrected. Properly installed and operated central electrostatic filtration should significantly reduce the amount of viable indoor mold spores. Humidification devices including cold mist vaporizers are best avoided, especially in homes of mold-sensitive persons. Logically, use of a dehumidifier in damp areas should be helpful, but no studies have yet been carried out to verify this commonly held belief.

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Perspective on Asthma in Pregnancy

THERE IS NEARLY equal probability that maternal asthma will improve, remain the same or grow worse during pregnancy. Improvement tends to occur in the first trimester and deterioration in the second and third. Cases of severe steroid-dependent asthma are the most likely to cause deterioration in these women's conditions during their pregnancies. Slightly increased percentage rates of premature births, spontaneous abortions and new-